epiTRENDS

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In This Issue:

Proposed Changes in Notifiable Conditions Address Work-Related Problems and a Serious Infection

Drug-Resistant *Streptococcus Pneumoniae:* An Emerging Problem

The emergence of antibiotic resistance in the common respiratory pathogen *Streptococcus pneumoniae* has prompted professional societies in the United States and abroad to revise treatment recommendations. The pneumococcus is the most common cause of bacterial meningitis, bloodstream infection, pneumonia, and middle ear infection. The use of antibiotics over the last few decades, sometimes excessive and inappropriate, has led to a current dilemma where the "magic bullets" of the past have become an ineffective arsenal against common infections.

In response to these problems, a Centers for Disease Control and Prevention working group identified two important public health activities that could lead to better control of pneumococcal illness and minimize complications from antibiotic-resistant disease: (1) laboratory-based surveillance for invasive pneumococcal illness through identification of pneumococcal isolates from cultures of spinal taps and blood, and (2) campaigns to promote judicious antibiotic use.

Surveillance

In Washington, the Department of Health (DOH) began surveillance for invasive and antibiotic-resistant *S. pneumoniae* in July 1997 to determine the proportion with antibiotic resistance. Twenty-seven hospitals in communities around the state volunteered to participate in an Antimicrobial Resistance Sentinel Network (ARSN) and to send quarterly reports on cases of pneumococcal meningitis or bloodstream

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Occupational Injuries and Illnesses: Washington Workforce at Risk

Occupational injuries and diseases are prevalent, serious, and costly. More than 140 million Americans are employed, and virtually every job has some risk of injury or illness. In 1992 workers sustained an estimated 13.2 million nonfatal injuries, and 6,500 died from a job-related injury. Approximately 862,200 cases of job-related disease occurred in the civilian workforce and 60,300 workers died from occupational diseases.* The total estimated cost of these injuries and diseases was $171 billion.

Washington has approximately 1.8 million workers. In 1997 the state workers' compensation (WC) fund accepted more than 154,800 claims with a total cost of more than $1.5 billion. About 97% of these claims were filed for injuries and the remainder for diseases.

We can prevent occupational injuries and illnesses by controlling and reducing exposures to physical, chemical, and biological hazards. To take preventive actions, we must first identify exposures that increase the risk of injury or illness.

Although WC data are useful for monitoring some occupationally related diseases and injuries, they underestimate the prevalence of these conditions. The data fail to account for one-third of the workforce that is covered by companies that self insure and do not adequately identify job-related illnesses. In addition, delays between the occurrence of an injury or illness and the filing of a WC claim can preclude the identification of contributing factors and delay interventions to prevent further health

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Occupational *(from page 1)*

problems or deaths. Furthermore, workers may face various disincentives for reporting work-related injuries and illnesses and submitting WC claims.

To address this lack of data, the Department of Labor and Industries (L&I) in conjunction with the Department of Health (DOH) has proposed that four occupational conditions (in addition to blood lead levels) be made reportable in Washington State: asthma, hospitalized burns, blood lead, toxic hepatitis, and dermatitis (Table 1). Hospitalized burns will be reported weekly, the other conditions monthy. Developing well-supported and properly designed surveillance systems for each condition will allow collection of valuable information regarding associations between these conditions and various workplace exposures. This information can be used to develop prevention strategies.

Reports would be submitted to the Safety and Health Assessment and Research for Prevention (SHARP) Program, a multidisciplinary L&I research team that will work with DOH and local health jurisdictions to coordinate data collection. SHARP's mission is to conduct research, monitoring, and demonstration projects that promote healthy work environments and the prevention of workplace injuries and illnesses. SHARP has developed and maintained surveillance systems for occupational fatalities, adult blood lead levels, and skin disorders, and has conducted research on a variety of occupational safety and health issues.

SHARP will compare monthly surveillance reports to the WC claims when possible, and will be responsible for data analysis and dissemination. The information received through these reports will be used to initiate investigations to lessen work-related health risks. Data summaries will be shared with employers, businesses, health care providers, local health jurisdictions, and researchers.

If you have questions about the reporting of occupational conditions, contact Dr. Susan Sama or Dr. Barbara Silverstein at L&I (360-902-5669). Questions about the process to revise notifiable conditions in Washington State should be directed to Greg Smith at DOH (360-236-3704).

For More Information:

Visit the SHARP Website: http://www.wa.gov/lni/sharp

Changes in Distribution of *epiTRENDS* ▼

A need to reduce publication costs requires that we reduce the number of copies sent to a single address. One copy is now being mailed to the first alphabetical contact at each address. We ask that recipients make copies or route the issue. Or, we can send you the bulletin via email. For more information, contact Candy Holstine at cmh0303@doh.wa.gov or 360-236-4243.

TABLE 1: Occupational diseases/conditions suggested for notification, Washington State, 1998.

Disease/Condition	*Proposed Source of Report*
Asthma	all health care providers
Blood lead*	all laboratories
Hospitalized burns	burn centers only
Toxic hepatitis	all health care providers
Dermatitis	sentinel system of health care providers**

* currently notifiable
**only selected providers voluntarily participate in reporting process

*Leigh PL, Markowitz SB, Fahs M, et al: Occupational injury and illness in the United States: Estimated of costs, morbidity, and mortality. *Arch Intern Med* 1997; 157:1557-1568.

S. pneumoniae *(from page 2)*

infections to the DOH Communicable Diseases Section. Between July 1997 and June 1998, 300 cases of invasive pneumococcal disease were reported through the ARSN; 285 cases (95%) were identified from isolates cultured from blood and the remainder from spinal taps. Most patients were either less than two years of age or older than 65.

The most disturbing finding in the 300 cases was that 20 isolates had diminished susceptibility to the broad-spectrum cephalosporins such as cefotaxime or ceftriaxone, the most common agents for treating meningitis and severe pneumococcal disease. These findings confirm the need to treat both adults and children diagnosed with presumed bacterial meningitis with a combination of vancomycin and a broad-spectrum cephalosporin until culture and susceptibilty results are available.

Immunization of persons over 65 years with the currently available vaccine could prevent some infections. Immunization against pneumococcal disease for children under two years of age likely will begin in a few years after the completion of clinical trials now under way to test a new vaccine.

In its recent review of notifiable conitions and proposed revisions to the list, DOH considered the surveillance of invasive or antibiotic-resistant *S. pneumoniae* to determine levels of antibiotic resistance. The reviewers determined that prevalence and seriousness of the infection and the potential effectiveness of public health

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Monthly Surveillance Data by County

October 1998* – Washington State Department of Health

County	E. coli O157:H7	Salmonella	Shigella	Hepatitis A	Hepatitis B	Non-A, Non-B Hepatitis	Meningococcal Disease	Pertussis	Tuberculosis	Chlamydia	Gonorrhea	AIDS	Pesticides†	Lead§#
Adams	0	0	0	0	0	0	0	1	0	3	0	0	0	0/0
Asotin	0	0	0	0	0	0	0	0	0	1	0	0	0	0/#
Benton	0	0	0	0	0	0	0	0	0	18	2	1	0	0/31
Chelan	0	1	1	0	0	0	0	3	0	4	0	0	0	0/0
Clallam	0	0	0	0	0	0	0	2	0	6	0	1	0	0/0
Clark	3	1	4	4	2	1	1	0	2	55	7	0	1	0/5
Columbia	0	0	0	0	0	0	0	0	0	0	0	0	0	0/0
Cowlitz	0	0	0	7	0	0	0	0	0	10	0	0	0	2/23
Douglas	0	0	1	0	0	0	0	0	0	3	0	0	1	0/0
Ferry	0	0	0	0	0	0	0	0	0	0	0	0	0	0/#
Franklin	0	0	0	0	0	0	0	0	0	14	1	0	0	0/#
Garfield	0	0	0	0	0	0	0	0	0	3	0	0	0	0/0
Grant	0	0	0	0	0	0	0	0	0	18	1	0	3	0/#
Grays Harbor	0	0	0	0	0	0	0	1	0	11	0	0	0	0/0
Island	0	0	0	0	0	0	0	0	0	9	2	0	0	0/#
Jefferson	0	0	0	0	0	0	0	0	0	0	0	0	0	0/0
King	1	2	3	0	0	2	2	4	11	258	72	18	1	1/40
Kitsap	1	1	1	0	0	0	0	0	0	45	10	0	0	0/18
Kittitas	1	0	0	0	0	0	0	1	0	3	0	0	0	0/0
Klickitat	1	0	0	0	0	0	0	0	0	1	0	0	0	0/0
Lewis	0	0	1	0	1	0	0	0	1	8	1	0	0	0/#
Lincoln	0	1	0	0	0	0	0	0	0	0	0	0	0	0/0
Mason	0	0	0	0	0	0	0	0	0	7	0	0	0	0/0
Okanogan	0	0	0	0	0	0	0	0	0	11	0	0	1	0/0
Pacific	0	0	0	2	0	0	0	0	0	1	1	0	0	0/#
Pend Oreille	0	0	0	0	0	0	0	0	0	1	1	0	0	0/0
Pierce	6	2	2	2	0	1	0	4	4	139	52	5	1	3/81
San Juan	0	0	0	0	0	0	0	0	0	1	0	0	0	0/0
Skagit	0	0	2	1	0	0	0	0	0	12	1	0	0	0/5
Skamania	0	0	0	0	0	0	0	0	0	2	0	0	0	0/0
Snohomish	2	0	2	1	2	0	0	2	4	66	22	2	1	0/5
Spokane	0	1	0	19	0	0	0	0	0	56	7	1	0	3/25
Stevens	0	0	0	0	0	0	0	1	0	2	0	0	0	0/0
Thurston	1	0	0	1	0	0	0	0	0	17	5	0	0	0/15
Wahkiakum	0	0	0	0	0	0	0	0	0	0	0	0	0	0/0
Walla Walla	0	1	0	0	1	0	0	0	0	10	0	1	1	0/11
Whatcom	0	0	0	0	0	0	0	1	0	24	3	0	0	0/#
Whitman	0	0	0	0	0	0	0	0	0	0	0	0	0	0/0
Yakima	2	2	9	2	0	0	0	0	2	53	2	4	6	0/6
Unknown														0/0
Current Month	18	12	26	39	6	4	3	20	24	872	190	33	16	9/284
October 1997	34	74	37	118	11	2	10	40	18	931	189	44	19	26/506
1998 to date	90	401	180	875	91	21	58	276	221	9267	1653	350	394	109/2857
1997 to date	107	512	231	559	68	24	78	328	254	7731	1639	524	345	147/3766

* Data are provisional based on reports received as of October 31, unless otherwise noted.
† Unconfirmed reports of illness associated with pesticide exposure.
§# Number of elevated tests (data include unconfirmed reports) / total tests performed (not number of children tested); number of tests per county indicates county of health care provider, not county of residence for children tested; # means fewer than 5 tests performed, number omitted for confidentiality reasons.

WWW
Access Tips

The Centers for Disease Control and Prevention, National Center for Infectious Disease, provides information about antimicrobial resistance at: http://www.cdc.gov/ncidod/diseases

S. pneumoniae *(from page 2)*

interventions warrant continued surveillance but that the large number of invasive infections makes notification of each case impractical. In contrast, the sentinel system that tracks only cases from selected facilities provides useful information on patterns of occurrence while also limiting the burden of reporting.

Thus, DOH would like to continue the ASRN piloted in 1997–98 to follow trends and develop a baseline to measure intervention efforts. Participation by hospitals would still be voluntary. However, through the state regulatory code DOH would commit to continued collection of the information and would routinely report back to physicians, laboratories, hospitals, local health departments, and other public health practitioners.

Judicious Antibiotic Use Campaign

Beginning this November, the Department of Health will join health care plan providers and professional societies in a campaign to promote judicious use of antibiotics, particularly for upper respiratory conditions. Health promotion activities directed to parents and primary care providers will:

- Reinforce medical education around the risks of over-prescribing or inappropriate use of antibiotics and the potential effects of misuse,
- Provide physicians and others having prescribing authority with information on prescribing patterns,
- Educate parents on those conditions for which antibiotics are and are not medically indicated.

Campaign organizers will convey these messages through press conferences, educational materials, lectures to physicians by physicians, and other routes and will evaluate their effectiveness through surveys and by any changes in the prevalence of resistant pneumococcus identified through ARSN.

For information on ARSN or the "Judicious Antibiotic Use" campaign, please call the DOH Communicable Diseases Section at 206-361-2914. For information on the revision of notifiable conditions, please call Greg Smith at 360-236-3704.

Information on Food Product Recalls Is Available on the Internet

Several food product recall notices have been issued over the past few months, but obtaining timely information about a recall can be complicated. Check the following Internet sources for updated information:

- *U.S. Department of Agriculture* — Recalls for meat and poultry products (excluding prepackaged sandwiches and non-shell eggs) are posted at: http://www.fsis.usda.gov
- *U.S. Food and Drug Administration* — Recalls for all other food products including shell eggs, sandwiches, and medications are posted at: http://www.vm.cfsan.fda.gov
- *Producers* — A producer can issue a recall independently of a federal agency. A Web search may locate the producer's home page, which may include additional information.

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